

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-026714**Date Inspected:** 15-Nov-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Component**Summary of Items Observed:**

Quality Assurance Inspector (QA) William Clifford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

13W/14W "D" Plate

This QA observed, at random intervals, an ABF/JV qualified welder, Rory Hogan #3186, performing Submerged Arc Welding (SAW) and implementing Caltrans approved Welding Procedure Specification (WPS)

ABF-WPS-D15-4042B-1. Welding was performed at the 30/35mm butt weld joint (B-U2-S) connecting Lift 13 and Lift 14 "D" bottom plates. Welding operations were performed from approximately Y=4500mm~6500mm.

This weld is a Seismic Performance Critical Member (SPCM) member.

During welding, ABF Quality Control (QC) Steve Jensen was noted monitoring the welding parameters.

Welding parameters were recorded as (A=559, V=32.5, T=400).

This QA observed, at random intervals, an ABF/JV qualified welder, Jeremy Dolman #5042, performing Flux Cored Arc Welding (FCAW) and implementing Caltrans approved Welding Procedure Specification (WPS)

ABF-WPS-D15-3200-2. Welding was performed at the 30/35mm butt weld joint (B-U2-S) connecting Lift 13 and Lift 14 "D" bottom plates.

This weld is a Seismic Performance Critical Member (SPCM) member.

During welding, ABF Quality Control (QC) Steve Jensen was noted monitoring the welding parameters.

Welding parameters were recorded as (A=246, V=23.4, T=355).

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13W/14W "H" Plate

This QA observed, at random intervals, an ABF/JV qualified welder, Richard Garcia #5892, performing Flux Cored Arc Welding (FCAW) and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-3040B-3. Welding was performed at the 25/30mm butt weld joint (B-U2a-GF) connecting Lift 13 and Lift 14 "H" diagonal plates.

This weld is a Seismic Performance Critical Member (SPCM) member.

During welding, ABF Quality Control (QC) Steve Jensen was noted monitoring the welding parameters. Welding parameters were recorded as (A=212, V=23.5, T=150).

Approximately:

13:45 this QA observed QC Pat Swain perform Ultrasonic Testing (UT) of the completed welds at 14W-PP128-W5-LLH#1. Mr. Swain recorded two (2) rejectable indications and one (1) indication that was within six (6) decibels of the rejectable criteria at Lifting Lug Hole #2 at this time. Please see QCUT report dated 11/15/11 for more information regarding these indications.

Note:

During random observation of QC Magnetic Particle (MT) testing a linear indication measuring approximately 90mm in length was discovered in the base material adjacent (approximately 10mm from the toe) to the lifting lug hole designated as 14W-PP128-W5-LLH#2. See attached photograph for visual representation.

Ultrasonic Testing

This QA performed Ultrasonic Testing (UT) on approximately 50% of the lifting lug hole welds at 14W-PP128-W4-LLH #1&2. These welds were previously accepted by QC Ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3.

This QA observed no rejectable indications at the time of testing. This QA generated a TL-6027 UT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

This weld is a Seismic Performance Critical Member (SPCM) member.

Magnetic Particle Testing

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 50% of the lifting lug hole welds at 14W-PP128-W4-LLH #1&2. These welds were previously accepted by QC Magnetic Particle technicians. This QA observed no rejectable indications at the time of testing. This QA Inspector generated a TL-6028 MT report on this date. The completed work observed at this location appeared to be in compliance with the contract specifications.

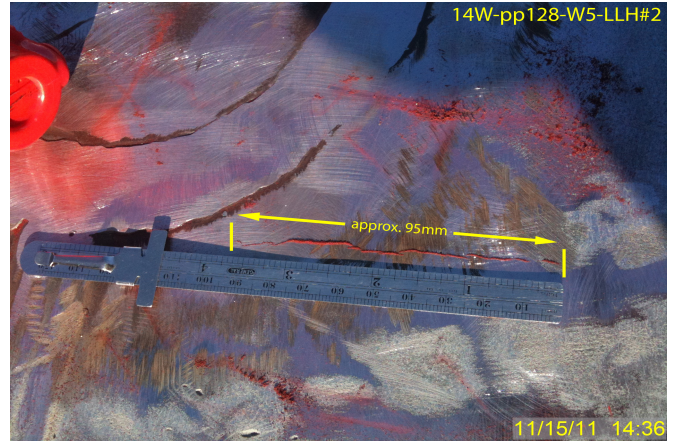
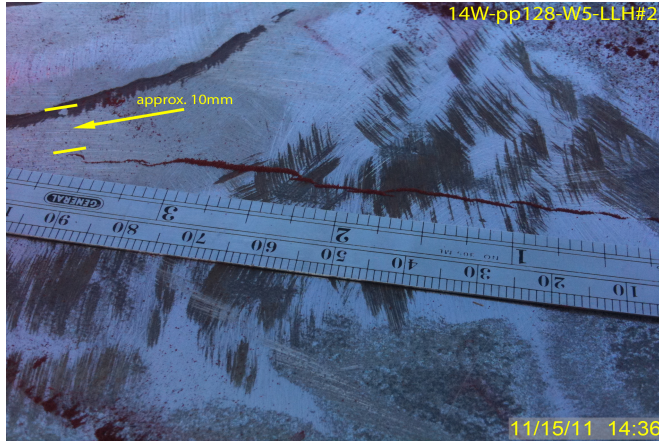
This weld is a Seismic Performance Critical Member (SPCM) member.

This QA verbally informed QA SPCM Lead, Daniel Reyes, of the issues noted in this report for compliance. For further details of issues of significance see QA SPCM Lead, Daniel Reyes, "Daily Inspection Report" (TL-6031) submitted for this date.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Clifford, William

Quality Assurance Inspector

Reviewed By: Levell, Bill

QA Reviewer